

REMARKS

Claims 91 and 94-100 are pending. Claims 99-100 are free of the prior art but objected to as being dependent upon rejected claim 91. Claims 91 and 94-98 stand rejected under 35 U.S.C. § 102. This rejection is addressed below.

Rejection under 35 U.S.C. § 102(e)

Claims 91 and 94-98 stand rejected under U.S.C. 35 § 102(e) as being anticipated by Mamounas et al. (WO 97/38723, herein “Mamounas”), as evidenced by Rutledge et al. (Journal of Virology, 1998, 72(1):309-319, herein “Rutledge”). In applying this rejection, the Office states (Office Action p. 4; emphasis added):

Mamounas discloses the preferred expression sites in the AAV vectors at...amino acids 239-244 of VP3 (page 4, lines 30-31, and Table 1, Mutation D4). Amino acids 239-244 of AAV VP3 overlap with Applicant’s SEQ ID NO: 4 as shown below:

Mamounas’ insertion in region 239-244: YLYYLS (see sequence in Rutledge, Figure 4B)

Applicant’s insertion in SEQ ID NO: 4: YYLSRTNTPS

(Rutledge, page 316, Figure 4B, arrow indicating start of VP3 with Met; *start with Met as amino acid 1 of VP3, then count to amino acid 239*).

Applicants respectfully disagree, and therefore traverse this rejection.

Applicants submit that SEQ ID NO: 4 corresponds to a different amino acid sequence than Mamounas’s sequence D4. The confusion stems from the system of amino acid counting and a differing assignment of Methionine (Met) number 1 as the initial amino acid of the VP sequence.

Applicants direct the Examiner’s attention to Exhibit I, which shows the entire VP translated sequence, equivalent to that sequence shown by Rutledge in Figure 4B. This sequence is 735 amino acids in length (1-735). Mamounas’s disclosure of site D4 at amino acids 239-244 was arrived at by counting from Methionine number 1 of the entire VP translated sequence. This site is shown in attached Exhibit I as “(Mamounas) D4”

(highlighted in Exhibit I, p. 2, top of the page) and encompasses amino acids ITTST. Applying this same system of counting (i.e., beginning with Met1 of the entire VP sequence), it is clear that Applicants' SEQ ID NO: 4 (highlighted in Exhibit I, p. 2, bottom of the page) is positioned at an entirely different site. Applicants' sequence is instead located at amino acids 443-452 and encompasses the sequence YYLSRTNTPS.

Alternatively, if the method of counting established by the Examiner is used, the first Methionine of VP3 would be assigned as amino acid 1 (see emphasized portion of quote above). In this case, Mamounas's D4 sequence -- rather than falling at amino acids 239-244, as erroneously indicated by the Office -- instead aligns with amino acids 38-42 of VP3. This would be in comparison to Applicants' SEQ ID NO: 4, which would then align with amino acids 240-249 of VP3.

This inadvertent error on the part of the Office has resulted in an incorrect determination of the amino acid sequence of the Mamounas D4 site. The amino acid sequence of D4 (rather than corresponding to amino acids YLYYLS, as indicated by the Office above) instead exactly encompasses amino acids ITTST, as shown in Exhibit II. This amino acid assignment is based on the reference in Mamounas, at page 62 to the sequence of Srivatava et al. (J. Virol. 45: 555-564, 1983). Mamounas states that the D4 deletion encompasses amino acid positions 2921-2935 of the Srivatava sequence (corresponding to amino acids 2920-2934 of Ruffing et al.(1994)), and that the D4 site consists of underlined, bold nucleic acids (Mamounas, p. 62; emphasis theirs):

D4: cagagtc**atcaccaccagcacc**gaacctgggccc.

This nucleic acid sequence, atc acc acc agc acc, encodes the amino acids ITTST. The amino acid sequence ITTST in no way overlaps with SEQ ID NO: 4, which is YYLSRTNTPS.

In view of the above, Applicants request reconsideration on this issue. The

rejection under 35 U.S.C. § 102(e) may be withdrawn.

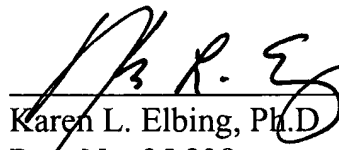
CONCLUSION

This application is now in condition for allowance, and such action is respectfully requested.

If there are any additional charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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